

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

[e1] 1. (Currently amended) A method of operation of a source node for selecting a restoration path in a mesh telecommunication network having a plurality of nodes comprising the steps of:

    sending a first message along a service path to the a destination node;

    receiving, in response to the first message, a second message from the destination node via a return path, the second message containing an array representing storing a restoration link capacity needed on for each link in the return path not in the service path ~~over possible failures of the service path~~, wherein at least some of the nodes in the return path update the array upon receipt of the second message ~~link information used to compute the array is distributed among a plurality of nodes in the network along a path of the second message~~;

~~using the array to selecting~~ a restoration path through the network from the source node to the destination node using the array; and

    reserving resources for the restoration path in the network.

[e2] 2. (Currently amended) The ~~invention~~ method of claim 1 wherein the link ~~information distributed among the plurality of nodes~~ array comprises a matrix representing storing the a restoration link capacity ~~needed on a link when a possible failure occurs~~.

[e3] 3. (Currently amended) The ~~invention~~ method of claim 2 wherein the restoration link capacity on a link ~~may be~~ is shared by non-simultaneous failures.

~~{c4}~~4. (Currently amended) The ~~invention~~ method of claim 3 further comprising the step of sending a third message to update the array link information ~~distributed among the plurality of nodes.~~

~~{c5}~~5. (Currently amended) The ~~invention~~ method of claim 4 wherein the resources for the restoration path are reserved by sending a fourth message along the restoration path to the destination node in the network.

~~{c6}~~6. (Currently amended) The ~~invention~~ method of claim 5 wherein the service path is set up by nodes along the service path in the network as the first message traverses each of the nodes along the service path.

~~{c7}~~7. (Currently amended) The ~~invention~~ method of claim 6 wherein the nodes in the network are cross-connects.

~~{c8}~~8. (Currently amended) The ~~invention~~ method of claim 7 wherein the nodes in the network are optical cross-connects.

~~{c9}~~9. (Currently amended) The ~~invention~~ method of claim 8 wherein possible failures are defined by shared risk link groups.

~~{c10}~~10. (Currently amended) The ~~invention~~ method of claim 9 wherein rows of the matrix ~~representing~~ storing restoration link capacity are stored in master nodes of shared risk link groups.

~~{c11}~~11. (Currently amended) The ~~invention~~ method of claim 10 wherein columns of the matrix ~~representing~~ storing restoration link capacity are stored in master nodes of links in the network.

[c12] - [c19] (Canceled)